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Document Hierarchies - Add-On Solution

Versions:

- V1-3** First community release
- V1-1** Initial prototypes and packaging
- V1-2**

Overview – Solution Package

„Document Hierarchies“

- Adds new Item Types to build Document Hierarchy Structures linking to individual documents
- Much like Bills Of Materials, Document Hierarchies are versionable and operate on a life cycle (Preliminary->Released->Obsolete)
- A separate ItemType „Document Collection“, also versionable, is used to group a „Document Hierarchy“ and allow different access control. Also operating on the same life cycle.
- „Dummy“ TOC Item Types can be used to set up a direct access to a document hierarchy of a defined type, such as a „Quality Handbook“ or an „Operations Manual“ or more. This package includes the example for a „Quality Handbook“
- Owners and Co-Owners can be defined for „Document Collections“ and every level of the „Document Hierarchy“. Manual Release of the full structure (down) is allowed for Owners.
- Manual Revisioning is also allowed for Owners. If revisioning is started on a node within the document hierarchy, then all nodes on the path to the top (including to „Document Collection“) will be automatically revisioned, as well. (up)
- Linked Documents must still follow their own release and revisioning process.
- Hierarchy nodes linking to documents will show released documents only, if the „query option“ on the grid is set to „latest Released“. Else the current version of linked documents will be shown.

Installation

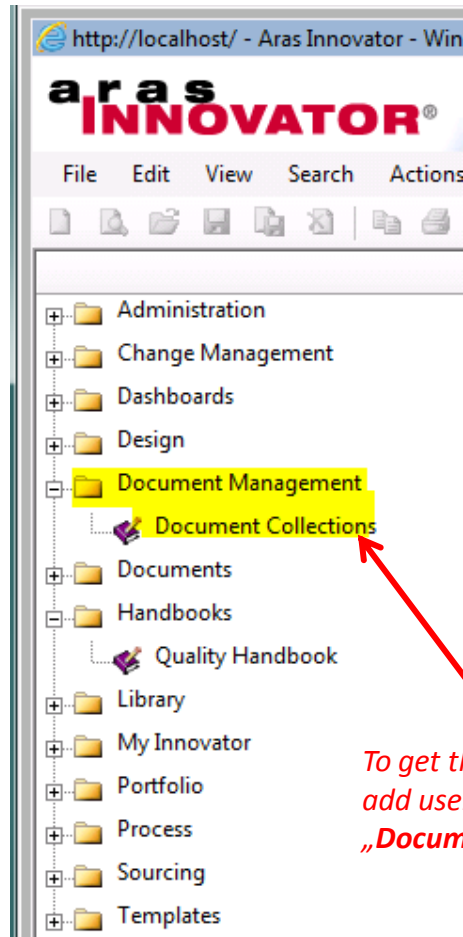
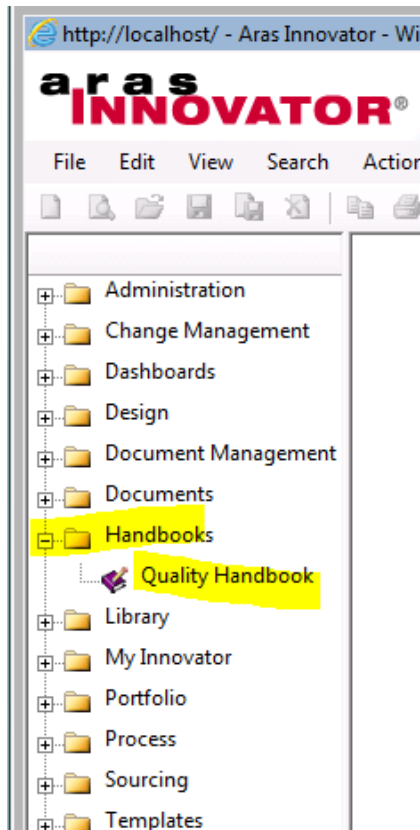
- Use the PackageImportExportUtilities to import the package „Document Hierarchies vX-X“
- Extract package to directory accessible to the import tool.
- Start the import tool, enter the URL to your Aras environment
- Import will require 3 import cycles (import0,Import1,import2)
 - 0-Common Utilities v1-6 (partial) → import as „**admin**“, use option „**merge**“.
 - 1-Innovator Core Extensions → import as „**root**“, use option „**merge**“.
 - 2-Document Hierarchy Solution → import as „**admin**“, use option „**merge**“.

TOC Access

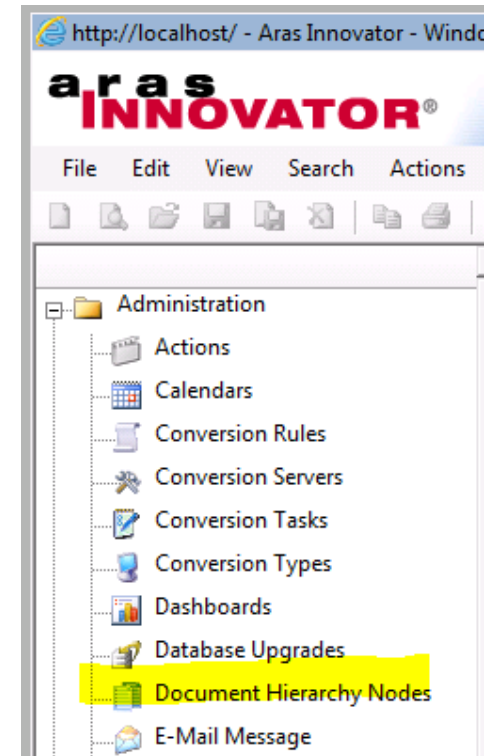
Administrators &
Document Collection Management

Administrators

All Employees



*To get this TOC entry
add users to Identity:
„Document Collection Management“*



Latest Released version of Document Collection's Hierarchy and Document on separate TOC.

For All Employees

The screenshot displays the Aras Innovator web application. The left sidebar shows a document hierarchy with folders like Administration, Change Management, Dashboards, Design, Document Management, Documents, Handbooks, Quality Handbook (highlighted), Library, My Innovator, Portfolio, and Process. The main area shows a table of documents with columns: Document Number, Pos, Name, Revi..., gene..., Release Date, Owner, Type, and Description. A red arrow points to the 'Latest Released' dropdown menu in the toolbar. Another red arrow points to the 'QMB-10020' document link in the table. A blue dashed arrow points from the 'QMB-10020' link to a separate window showing the technical specifications for the 'Thing-O-Matic' 3D printer.

Latest Released Nodes and Documents only !

Document Number	Pos	Name	Revi...	gene...	Release Date	Owner	Type	Description
1000-CH - Chapter 1	--	--	A	--	--	Innovator Admin	--	
QMB-1000	10	Company Introduction	A	2	11/9/2012	Innovator Admin	--	
2000-CH - Chapter 2	--	--	A	--	--	Innovator Admin	--	
QMB-10001	10	Process Definitions	A	2	11/9/2012	Innovator Admin	--	
1100-S - Section 2-2	--	--	A	--	--	Innovator Admin	--	
QMB-10010	10	Product Development Process	A	3	11/9/2012	Innovator Admin		ddd
QMB-10020	20	Product Manufacturing Process	A	2	11/9/2012	Innovator Admin		
1200-S - Section 2-2	--	--						

Technical specs

Manufacturer	MakerBot Industries
Model	Thing-O-Matic
Technology	Thermoplastic extrusion
Price	\$1099 for the Thing-O-Matic Kit which includes our new Stepstruder MK7
Annual Service	This is a hot rod style device on the cutting edge of 3D printing technology and like a hotrod, you'll have to oil it and do occasional maintenance. There is no service warranty.
Machine Size	It's 12"x12"x16" LxWxH
Weight	Approx. 12 lbs or 5 kg.
Materials	ABS or PLA Plastics. The Plastruder MK5 and below use 3mm filament. The Stepstruder MK6 can take both 3mm and 1.75mm filament and the new Stepstruder MK7 uses 1.75mm filament exclusively.
Material Cost	See the store for current pricing. But it's not expensive.

Click on link to open attached file directly.

Administrators can set up variable „File Ext to View single File“ To maintain a list of possible file extensions (comma separated)

Access To „This (current) Revision“ of Hierarchy and Documents. For Owners of the „Document Collection“

http://localhost/ - Aras Innovator - Windows Internet Explorer

aras INNOVATOR®

File Edit View Search Actions Reports Tools Help

Friday, November 09, 2012 11:06 AM

Simple Search Page Size: 50 Max Results: 500 Current As Of:

Number	Name	Rev	Owner [...]	Classification	Status	Description	Doc Hier...	Co-Owners [...]	Last Modified By [...]	Last M...
DCL00001	QUALITY MANAGEMENT ...	A	Innovator Admin	Book	Preliminary	COLLECTION			Innovator Admin	11/9/2012

Document Collection

Created By: Innovator Admin
Created On: 11/9/2012
Modified By: Innovator Admin
Modified On: 11/9/2012
Locked By: Innovator Admin
Major Rev: A
Release Date:
Effective Date:
Generation: 1
State: Preliminary

Doc Hierarchy Icon Select an image...
Doc Hierarchy Open Icon Select an image...

Document Hierarchy Top Nodes

+ - [This Revision]

Document Number	Pos	Lck	Name	Revi...	mino...	State	Files	Changes	Release Date	Owner	Type
1000-CH - Chapter 1	--	--	--	A	--	Preliminary			--	Innovator Admin	--
QMB-1000	10	--	Company Introduction	A	--	Preliminary			--	Innovator Admin	--
2000-CH - Chapter 2	--	--	--	A	--	Preliminary			--	Innovator Admin	--
QMB-10001	10	--	Process Definitions	A	--	Preliminary			--	Innovator Admin	--
1100-S - Section 2-2	--	--	--	A	--	Preliminary			--	Innovator Admin	--
QMB-10010	10	--	Product Development Process	A	--	Preliminary			--	Innovator Admin	--
QMB-10020	20	--	Product Manufacturing Process	A	--	Preliminary			--	Innovator Admin	--
1200-S - Section 2-2	--	--	--	A	--	Preliminary			--	Innovator Admin	--

View Item
View Document Files
Release Hierarchy Nodes (down)
Revise Hierarchy Nodes (up)
Update To latest Released Document

Context menu to allow Release and Revision Management for node owners.
To revise a node you must be owner or in co-owners of Document Collection, as well.

Document Collection Actions

http://localhost/ - Document Collection - DCL00001 QUALITY MANAGEMENT HANDBOOK (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Revise Collection (only)
Release Collection (only)
Release Collection (full Structure)

Number
DCL00001

Classification
Book

Document Collection

Description
COLLECTION

Rev
A

Release

Owner
[Innovator Admin](#)

Co-Owners

Doc Hierarchy Icon Doc Hierarchy Open Icon

Document Hierarchy **Top Nodes**

Actions Create Related

Hide Search Criteria Page Size

Pos	Code	Name	Rev	Status	Owner [...]
1	1000-CH	Chapter 1	A	Preliminary	Innovator Admin
2	2000-CH	Chapter 2	A	Preliminary	Innovator Admin

Simulate Latest Released option

http://localhost/ - Document Collection - DCL00001 QUALITY MANAGEMENT HANDBOOK (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Number: DCL00001 Name: QUALITY MANAGEMENT HANDBOOK Rev: B Status: Preliminary

Classification: Book Description: COLLECTION Release Date: Owner: Innovator Admin

Document Collection Doc Hierarchy Icon Doc Hierarchy Open Icon Co-Owners

Document Hierarchy Top Nodes

+ - This Revision

Document Number	Pos	Lck	Name	Revi...	gene...	State	Files	Changes	Release Date	Owner
1000-CH - Chapter 1	--	--	--	B	--	Preliminary			--	Innovator Admin
QMB-1000	10	--	Company Introduction	A	2	Released	✓	□	11/9/2012	Innovator Admin
1100-S - Section 1-1	--	--	--	A	--	Preliminary			--	Innovator Admin
2000-CH - Chapter 2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10001	10	--	Process Definitions	A	2	Released	✓	□	11/9/2012	Innovator Admin
1100-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10010	10	--	--	A	--	Released			--	Innovator Admin
QMB-10020	20	--	--	A	--	Released			--	Innovator Admin
1200-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin

http://localhost/ - Document Collection - DCL00001 QUALITY MANAGEMENT HANDBOOK (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Number: DCL00001 Name: QUALITY MANAGEMENT HANDBOOK Rev: B Status: Preliminary

Classification: Book Description: COLLECTION Release Date: Owner: Innovator Admin

Document Collection Doc Hierarchy Icon Doc Hierarchy Open Icon Co-Owners

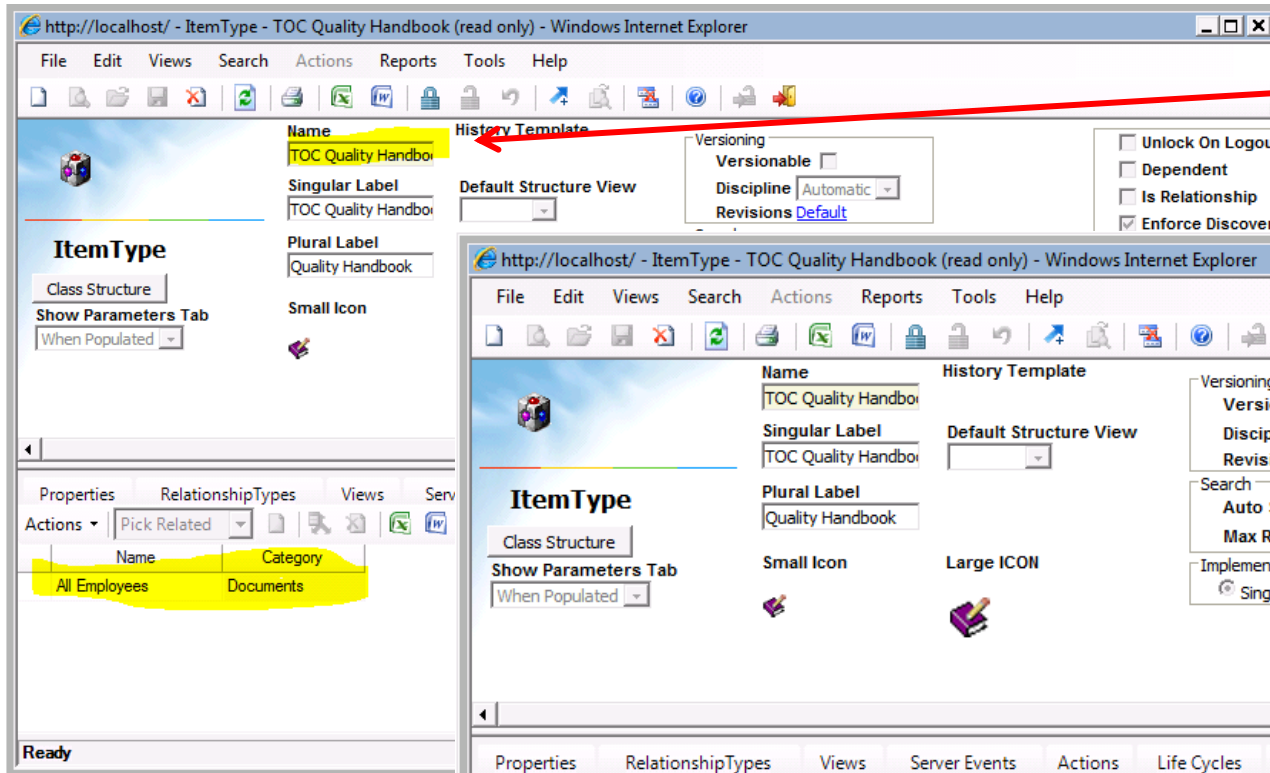
Document Hierarchy Top Nodes

+ - Latest Releases

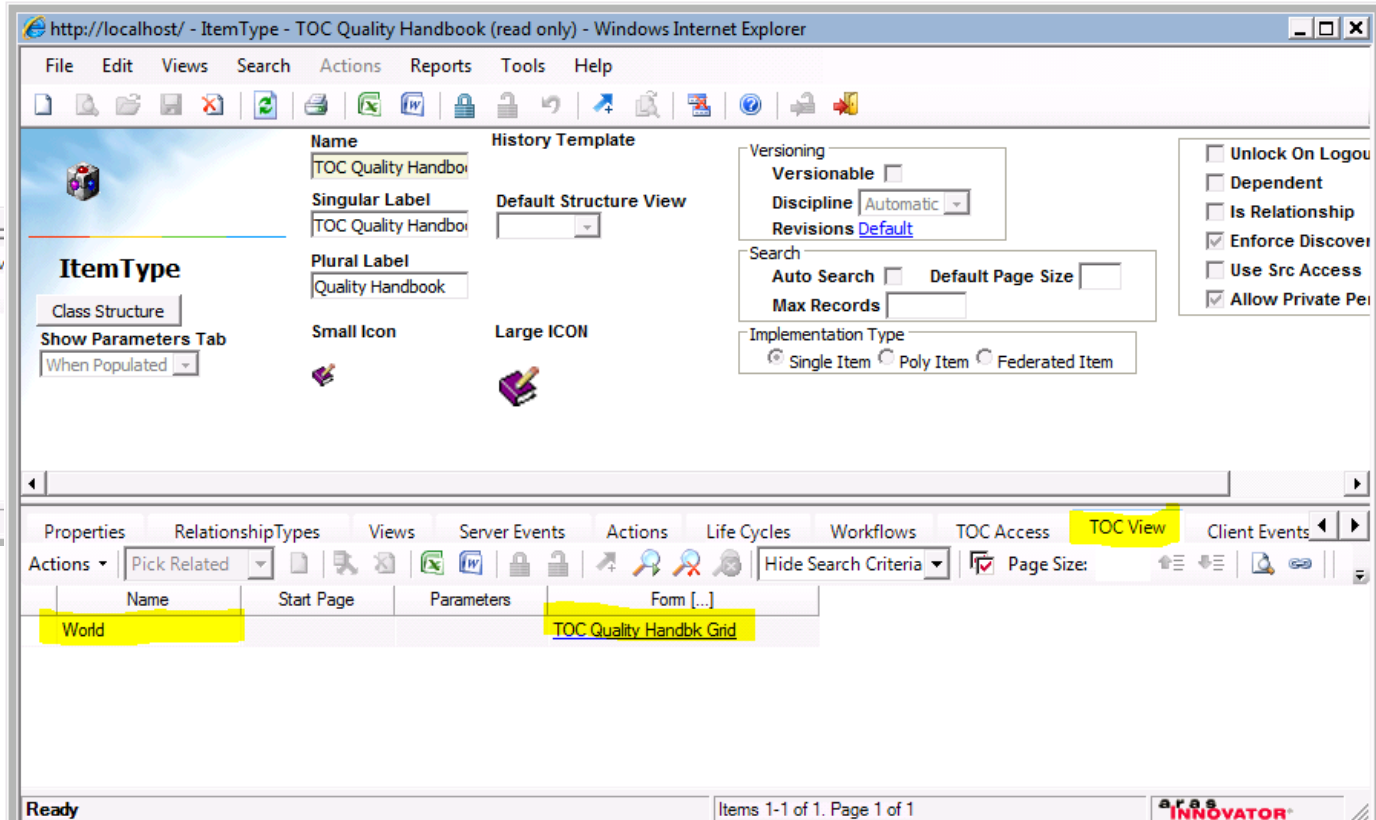
Document Number	Pos	Lck	Name	Revi...	gene...	State	Files	Changes	Release Date	Owner
1000-CH - Chapter 1	--	--	--	A	--	Released			--	Innovator Admin
QMB-1000	10	--	Company Introduction	A	2	Released	✓	□	11/9/2012	Innovator Admin
2000-CH - Chapter 2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10001	10	--	Process Definitions	A	2	Released	✓	□	11/9/2012	Innovator Admin
1100-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10010	10	--	Product Development Process	A	3	Released	✓	□	11/9/2012	Innovator Admin
QMB-10020	20	--	Product Manufacturing Process	A	2	Released	✓	□	11/9/2012	Innovator Admin
1200-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin

Administrators:

Set up Navigation to Document Collection from TOC



Create a „dummy“ Item Type
to hold the TOC View



Set up Navigation to Document Collection from TOC (2)

http://localhost/ - Form - TOC Quality Handbk Grid (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Field Type Field Label Field Physical Field Border Field CSS Field Event Form Properties Form Body Form Event

Name: html_document_hierarchy_grid

Field Type: HTML

Data Source:

Background Color:

HTML Code

```
//  
=====
```

function initGrid10 {
 var itemTypeName = "TOC Quality HandBook";

Edit HTML to include name of the „dummy“ Item Type here

http://localhost/ - Form - TOC Quality Handbk Grid (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Field Type Field Label Field Physical Field Border Field CSS Field Event Form Properties Form Body Form Event

Actions: Pick Related

Name	Method Type	Ver	execution_allow...	Comments	Event	Sort Order
Common Grid Handler Funcs	JavaScript	6	World		onLoad	1
Document Hierarchy Grid Handler	JavaScript	9	World		onLoad	2

Re-use same logic also used for tree grid of Document Hierarchy Nodes

Set up Navigation to Document Collection from TOC

(3)

http://localhost/ - Variable - DCTOCIT_TOC Quality Handbook - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name DCTOCIT_TOC Quality Handbook

Value DCL00101

Default Value

Variable

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*Name of the „dummy“ Item Type
with prefix „DCTOCIT_“*

*Item_number of the (instance)
item of Document Collection to
show from TOC*

Data Model

TOC Access:

- Administrators
- Document Collection Management

Can Add:

- Administrators
- Document Collection Management

Key properties:

- name (required)
- description
- owned_by_id (required) (logic: auto copy to top nodes & hierarchy)
- managed_by_id (logic:auto copy to top nodes & hierarchy)
- team_id (logic:auto copy to top nodes & hierarchy)

Relationship View (Form): Document Hierarchy Grid

Document Collection Struct
Tab: Document Hierarchy

Prog. TreeGrid

Float/Fixed on Release

Document Collection Nodes

Tab: Top Nodes

Document Hierarchy Node

versionable (Default Revs)
Short Name: required
Name: required
Permission: Document Hierarchy...
New

Key properties:

- short_name (required)
- name (required) – multi-language
- description
- header_item_type (logic:auto copy to child nodes)
- header_item_id (logic: auto copy to child nodes)
- owned_by_id (required)
- managed_by_id
- team_id

Float/Fixed on Release

Document Hierarchy

Tab: Sub Nodes

Relationship View (Form): Document Hierarchy Grid

Document Hierarchy View
Tab: Hierarchy Navigator

Prog. TreeGrid

float

Document Hierarchy Document

Tab: Documents

Document

versionable (Default Revs)
Item_number:
Name: required
Permission: Document New ...

Key properties:

- published_file_type
- published_file_type_icon
- item_number (required)
- name (required)
- description
- major_rev
- owned_by_id (required)

File

Key properties:

- filename
- file_type
- file_type_small_icon
- file_type_large_icon

Variable

Name: „TOC_DCL_TOC
Quality Handbook“
Value: <item_number> of
Document Collection

TOC View (Form): TOC Quality Handbk Grid

Prog. TreeGrid

TOC Quality Handbook

Non versionable
Name:
Permission: Document
Hierarchy TOC Items

TOC Access:

- All Employees

Variable

Name: „TOC_DCL_TOC
Sales Handbook“
Value: <item_number> of
Document Collection

TOC View (Form): TOC Sales Handbk Grid

Prog. TreeGrid

TOC Sales Handbook

Non versionable
Name:
Permission: Document
Hierarchy TOC Items

TOC Access:

- All Employees

Add new „dummy“ TOC
Item Type for direct
access to an instance of
a „Document Collection“

Grid logic reads this
Variable to get to a
Document Collection
with its Document
Hierarchy Nodes

Use Cases

Create new Document Collection and Hierarchy

As Member of „Document Collection Management“

- Add new Document Collection
- Add new Top Nodes (of Document Hierarchies) to Document Collection
- Add new Sub Nodes to Document Hierarchy
- On various levels of the Hierarchy add links to existing or new Documents
- Use different Owners for Document Hierarchy Nodes

Initial Release of Document Collection and full Hierarchies of all top nodes

- Create new document collection and Hierarchy (other use case)
- On preliminary Document Collection use Action „Release Collection (full Structure)“

Revise Document Collection (only)

On released document collection run action „Revise Collection“

- On Document Collection use Action „Release“

Revise Hierarchy Node (up) including Document Collection

- On released document hierarchy node (on open form, or from tree grid) run action „Revise Hierarchy Nodes (up)“.
- You must be owner of the hierarchy node and owner of or member of co-owners of the Document Collection (of the top node of this hierarchy)

Use Cases (2)

Linking one Document Collection to (Handbook) TOC

- Administrator Users: go to TOC → Variables
- Edit variable „DCTOCIT_TOC Quality Handbook“ and then enter the item number of the Document Collection you want to link to. (i.e. DCL00001)

Release of partial Hierarchy (down)

- On Document Hierarchy of Document Collection go to a node inside hierarchy. Use context action „Release Hierarchy Nodes (down)“
- You must be owner of this hierarchy node
- Refresh tree grid → all Nodes down are released

On Hierarchy Grid: Update To Latest Released Document

- If a hierarchy node is released but linked documents are not released, this relationship is „fixed“. Meaning, if the document gets revised and released, the hierarchy node will still show its previous generation. This action can help to update the relationship to the latest released generation of the document.
- On a document row run action „Update To Latest Released Document“.
- The parent hierarchy node must be in state „Released“ and you must be the owner of the parent hierarchy node.

